



PC SYSTEMS FAQ

Q I'm thinking of buying a new desktop PC, but I'm worried about whether it will be able to run the forthcoming version of Windows, Windows Vista. What sort of PC should I buy, or should I just hold off until Windows Vista is released?

A Although Windows Vista will be packed with many useful features, no-one will force you to upgrade, and it is likely that software and hardware manufacturers will support Windows XP for some time to come. Microsoft's own support is less certain, however (see *Newsfile* on page 264 for details).

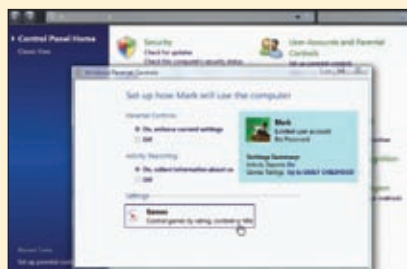
Although Vista is currently scheduled for release in the autumn of 2006, Microsoft has released details of the basic system requirements necessary to run Vista, although more powerful hardware may be needed depending on what you use your PC for. Any AMD Athlon 64 or Sempron processor should be able to run Vista. Compatible Intel processors include the Celeron D, any Pentium 4, the Pentium D, the Pentium Extreme Edition and the Xeon. Microsoft recommends 512MB of RAM and at least 1.5GB of hard disk space for the installation files, although this is likely to be the bare minimum needed to run Vista.

Windows Vista will have three different levels of animation, special effects and detail in its user interface. You will need different graphics hardware depending on which level you want to use. The most basic levels, Classic and Aero Basic, look like Windows 2000 and XP respectively.

Aero Glass, which offers fancy visual effects such as 3D graphics, animation and translucency, will require an AGP or PCI Express graphics card. This should have at least 64MB of RAM, but will need 128MB or more for screen resolutions of 1,600x1,200 or higher. This should include any graphics card more recent than nVidia's GeForce FX family and ATI's Radeon 9500.

You can visit www.microsoft.com/technet/windowsvista/evaluate/hardware/vistarc.msp for details of the cheapest suitable graphics card, such as an nVidia nForce 6200 or ATI Radeon X300. Don't be tempted to get a faster graphics card, as you won't use its features.

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Windows Vista will have three levels of animation, special effects and detail in its user interface

REVIEW DESKTOP PC

EVESHAM MiniPC Plus

RATING ★★★★★

PRICE £699 inc VAT

SUPPLIER Evesham Technology

sales@evesham.com

DETAILS www.evesham.com



Evesham's MiniPC Plus bears more than a passing resemblance to Apple's Mac mini and will appeal to people who are short on space but still want a stylish and quiet PC.

Like the Mac mini, the MiniPC Plus comes without a mouse, keyboard or monitor. It also lacks any legacy ports, so you'll need a USB keyboard and mouse. However, these would take up both USB2 ports, so a matching USB2 hub would have been welcome.

A 2GHz Pentium M 750 processor and 512MB of memory power the MiniPC. Its decent performance scores are more comparable with those of similarly specced notebooks than full-blown desktop PCs. The case has no room for dedicated graphics, so the MiniPC uses onboard Intel graphics, which aren't good enough for games.

Windows XP Media Center Edition 2005 is becoming a more popular choice of operating system, so we weren't surprised to see it here. Evesham doesn't supply a remote control, but this isn't too much of a disappointment as the 80GB hard disk isn't big enough to use the MiniPC as a

huge MP3 and video store. The 8X DVD writer isn't very fast, and being a slot-loading model will be tricky to replace.

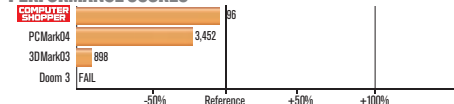
Despite the warning on the bottom of the MiniPC Plus, it's possible to pry open the case and upgrade the RAM or add a mini-PCI WiFi card.

Unfortunately, the MiniPC Plus is pricy, and £200 more expensive than the most expensive Mac mini configuration, which has WiFi and Bluetooth. Better-value computers with comparable performance also include larger systems that come in more expandable Shuttle XPC cases. A cheaper MiniPC configuration is available for £499 including VAT, but that model has an even smaller 40GB hard disk and a slower 1.4GHz Celeron M processor.

If size is an issue, or your primary concern is pure style, the MiniPC is a fine choice. It also has a few real advantages over the Mac mini: it runs Windows, it supports a much wider range of peripherals and there's a wider choice of software available for it.

Alan Lu

PERFORMANCE SCORES



✓ Small; stylish

✗ Pricy; small hard disk; only two USB2 ports

SPECIFICATIONS 2GHz Intel Pentium M 750 processor, 512MB RAM, 80GB hard disk, DVD+/-RW +DL, integrated Intel 915 graphics.

Part code MINIPCPLUSFEB06

HOTLIST DESKTOP PC

CARRERA Octan CS-02



RATING ★★★★★

PRICE £809 inc VAT

SUPPLIER Watford Electronics

08716 661616

DETAILS www.savastore.com



Carrera's Octan CS-02 has a powerful dual-core Athlon 64 X2 3800+ processor and it did particularly well in our video-encoding test, scoring 180. Its overall score of 156 is pretty good, too, so this PC should cope with any application you want to use. It's helped along by a generous 1GB of RAM.

Graphics are supplied by an ATI Radeon X800GT graphics card, which powered Doom 3 to a respectable 39.8fps. It will happily cope with today's games. The 17" Sony LCD is easy to adjust, but its backlight was slightly uneven and white areas of the screen were not totally pure. A 250GB hard disk is standard for the price and



offers plenty of room for your pictures, music, videos and applications. The Octan is a powerful computer at a good price.

SPECIFICATIONS AMD Athlon 64 X2 3800+, 1GB RAM, 250GB hard disk, 256MB ATI Radeon X800GT, DVD+/-RW DL, 17" LCD

REVIEW **DESKTOP PC****MESH**
Xtreme FX60

RATING ★★★★★

PRICE £2,199 inc VAT

SUPPLIER Mesh Computers 08700 464747

DETAILS www.meshcomputers.com

AMD's FX processors are known for their incredible performance, and the Xtreme FX60 goes one step further by using two FX cores on the same chip. Mesh is the first company to bring us a PC based on one of the FX60 processors and, as expected, it's expensive but powerful.

With its dual-core processor and 2GB of RAM, the Xtreme system managed to rack up some of the highest ever scores in our application benchmarks. As well as an excellent overall score, the Xtreme FX60 sailed through our video-encoding test with a score of 225, thanks to the test application's dual-core support.

For the many applications that still use only a single core, such as most games and office applications, the FX60 is actually slower than its predecessor, the FX57. The FX57 runs at 2.8GHz, while the FX60 has two cores, each of which runs at 2.6GHz.

Even using a single core, games performance won't be a massive problem on this PC, as it comes with two GeForce 7800GT graphics cards in SLI mode. It managed 92fps in Doom 3 running at 1,600x1,200 with ultra-high quality.



Mesh supplies the Xtreme FX60 with a 20" widescreen display, which has a massive resolution of 1,680x1,050. It's brilliant for working on two documents side-by-side, and even better for entertainment. However, we noticed that the greyscale test didn't produce smooth transitions, so you may prefer a different monitor if you'll be doing a lot of photo-editing work.

Instead of a single hard disk, Mesh has opted for a 500GB striped RAID-0 array consisting of two 250GB disks. The DVD writer is a little sluggish, writing DVD-R DL discs at just 4X.

For applications that use both processor cores, the Xtreme FX60 is the fastest PC we've seen and will only get better as more applications are written for it. However, it is also very expensive. Opting for a single-core processor and the same graphics cards will get you nearly the same level of performance for around £300 less. Still, if you really want the speed and high-quality components and have the money, you won't have any complaints.

Alan Lu

PERFORMANCE SCORES

✓ Very fast; excellent choice of components; large monitor

✗ Monitor struggled with our greyscale test; very expensive

SPECIFICATIONS AMD Athlon 64 FX60 (two 2.6GHz cores), 2GB RAM, two 250GB hard disks (500GB in a RAID-0 configuration), two 256MB nVidia GeForce 7800GTs, DVD+/-RW +/-DL, DVD-ROM, 20" LCD

HOTLIST **DESKTOP PC****PC NEXTDAY**
Zoostorm 6-5403

RATING ★★★★★

PRICE £850 inc VAT

SUPPLIER PC Nextday

sales@pcnextday.co.uk

DETAILS www.pcnextday.co.uk

PC Nextday's Zoostorm has excellent 3D graphics performance thanks to its 128MB nVidia GeForce 6800XT graphics card. It sailed through our Doom 3 test with an excellent score of 46fps, proving that gaming isn't going to be a problem for this PC.

The Athlon 64 3800+ processor is more than powerful enough for day-to-day applications, as the Zoostorm's score of 118 in the *Shopper* benchmarks shows. Unfortunately, only 512MB of memory is supplied, and we're used to seeing at least 1GB.

The AOC LM728 17" monitor is good enough, but it produces a disappointingly bluish white. PC



Nextday more than makes up for this with the bundled HP PSC 1410 multifunction peripheral. Its quality is very good, but running costs are quite high. The 250GB hard disk should prove large enough for your storage needs.

The Zoostorm has no onsite warranty and only 512MB of RAM. Still, it is fast in 3D games and performs well in Windows. If you'll use the wireless networking and printer, it's a great buy.

SPECIFICATIONS AMD Athlon 64 3800+, 512MB RAM, 250GB hard disk, 128MB nVidia GeForce 6800XT, DVD+/-RW DL, DVD-ROM, 17" LCD

BYTE
SIZE!

Our round-up of the best new gadgets and software

GENIUS
Ergo 525

RATING ★★★★★

PRICE £22 inc VAT

SUPPLIER www.cclonline.comDETAILS www.geniusnet.co.uk

The average optical mouse samples movement at around 400dpi. This gaming mouse is five times more sensitive, allowing for much faster or more precise control when playing games. You can switch speed at ease, going from 2,000dpi for hectic firefights down to 800dpi for Windows applications at the touch of a button.

There are six other buttons, plus a four-way scroll wheel. It fits nicely in your palm as long as you're right-handed, while four Teflon pads on the bottom make it glide nicely across the desk. The only downside is that it feels a little light. Still, at only £22, it's pretty cheap and is bound to improve your score in those vital Battlefield 2 clan games.

Seth Barton

**LOGITECH**
Logitech Cordless Desktop
MX 5000 Laser

RATING ★★★★★

PRICE £83 inc VAT

SUPPLIER www.amazon.co.ukDETAILS www.logitech.com

The Bluetooth MX5000 keyboard lacks the short key travel of Logitech's diNovo Media Desktop keyboard (*Labs, Shopper* 209), but it is responsive. The touch-sensitive buttons and sliders for controlling your media player application are slick but easy to trigger by accident.

A small LCD screen notifies you of incoming emails and IM messages. It can also provide access to playlists and internet radio stations, but only if you use MusicMatch. The calculator function is more useful. The MX1000 mouse is comfy and has eight programmable buttons and a scroll wheel. But it's pricy, so try before you buy.

Alan Lu





BYTE SIZE!



Our round-up of the best new gadgets and software

CREATIVE Webcam Live! Motion

RATING ★★★★★

PRICE £83 inc VAT

SUPPLIER www.ebuyer.com

DETAILS <http://uk.europe.creative.com/>

Creative's new webcam is amusing and paranoia-inducing in equal measures. It constantly tracks your movements, keeping you squarely in the middle of the frame. The clever design can perch on top of your LCD monitor or notebook display, from which it has a 200° view. It also looks up and down and has a digital zoom, so there's no escape.

The Live!

Motion has a resolution of 640x480 and produces 30fps.

The software is easy to install. The pans and zooms liven up the standard internet chat session, although it won't be you who benefits, of course, which makes it an ideal present for relatives overseas.

Seth Barton



SENDSTATION PocketDock FireWire

RATING ★★★★★

PRICE £17 inc VAT

SUPPLIER www.expansys.com

DETAILS www.sendstation.com

Murphy's Law dictates that the moment your iPod battery runs out or you need to copy a file from it to a computer, you won't be able to find a suitable dock connector cable for love or money.

SendStation's PocketDock adaptor is the size of your thumb, plugs into the bottom of your iPod and accepts standard cables. We were given the FireWire version, but SendStation makes USB and combined USB and FireWire adaptors too.

The PocketDock is genuinely useful and convenient, and is smaller and easier to carry than a dock connector cable.

Alan Lu



REVIEW DESKTOP PC

GATEWAY GT3016b

RATING ★★

PRICE £450 inc VAT

SUPPLIER www.comet.co.uk

DETAILS <http://uk.gateway.com>

Gateway's GT3016b is a desktop PC that comes with Windows XP Media Center Edition (MCE) 2005 installed. It doesn't look like the kind of PC you'd want to give pride of place in your lounge, though, and the lack of remote control, TV tuner and TV-out shows that Gateway doesn't expect you to.

However, Windows XP MCE's music, picture and video organisation features should prove useful wherever you put this PC, and you can easily add a TV tuner later and use its free electronic programme guide (EPG).

This particular PC comes without a monitor, so it's ideal for upgraders who want to keep their existing peripherals. If you're after a complete system, Comet also stocks this PC with either a 15", 17" or 19" LCD.

Gateway has had to cut some corners to build this budget PC, even if the specifications, which include a 3.06GHz Pentium 4 processor, 512MB of RAM and 200GB hard disk, don't make it seem this way. Closer inspection shows that the processor is the budget Pentium 4 519 rather than the full Pentium 4 530. Both run at 3GHz, so the differences are subtle, but the 519 doesn't have Hyper-Threading and runs its memory slower. This



results in performance scores that are little better than we'd expect from a notebook, although still acceptable for everyday tasks.

Gateway hasn't included a graphics card, so you won't be able to play 3D games on this PC. Strangely – and we've never seen this before – the GT3016b lacks a graphics card expansion slot, so you can't even install your own card later. It has only one PCI slot and one PCI-E x1 for expansion.

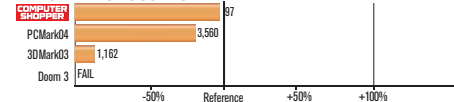
Most PCs can be noisy, but the GT3016b, which uses a BTX design, is whisper-quiet. The built-in memory card reader and roomy 200GB hard disk are useful, but the DVD writer is slow as it writes to DVD+R DL discs at only 2.4X and doesn't support DVD-R DL discs.

The rather weedy stereo speakers are no good for anything but the occasional beeps Windows makes, but support for six-channel audio means you can add a 5.1 surround-sound system. Bundled software includes Microsoft Works 8 and Microsoft Money 2005.

Sadly, with few upgrade options and a low-powered processor, this PC just isn't as good value as the alternatives in this month's *Labs*.

Alan Lu

PERFORMANCE SCORES



✓ Quiet; comes with Windows XP Media Center Edition

✗ No graphics card expansion slot; cheap processor

SPECIFICATIONS 3.06GHz Intel Pentium 4 519, 512MB RAM, 200GB hard disk, DVD+/-RW +DL, Intel GMA900 integrated graphics. Part code 28516

HOTLIST DESKTOP PC

SONY Vaio VGC-RC102

RATING ★★★★★

PRICE £1,160 inc VAT

SUPPLIER www.savastore.com

DETAILS www.sony-europe.com

The Vaio RC102's sleek appearance looks like something out of the film *2001: A Space Odyssey*. It doesn't have a monitor, but it has stereo speakers and a good wireless keyboard and mouse.

Designed as a media centre, the Vaio comes with a remote control that accesses Sony's interface. The software is easy to use and you can play video and music as well as viewing photos. The software can also be used to record television, although you need a tvtv.co.uk subscription if you want an EPG. Sony bundles the Vaio with a media receiver, so you can view all your media in a different room in the house. The media receiver has wired and wireless network connections, so it's a shame the Vaio has only a single wired port.



There is 320GB of hard disk storage provided by two 160GB hard disks in RAID 0 (striping). This is more than generous, and it should easily accommodate even the largest of digital media libraries.

This is a fine – although slightly pricy – choice for people who need a powerful general-purpose PC and a way of beaming their media around the house.

SPECIFICATIONS Intel Pentium D 820 processor, 1GB RAM, two 160GB hard disks, DVD+/-RW +/-DL, DVD-ROM, 256MB nVidia GeForce Go 6600 graphics card. Part code VGC-RC102



CHOOSING A...

PC
SYSTEM

Follow our simple step-by-step guide to buying a PC and get the perfect system for your needs

1 The minimum specification of PC we recommend, shown in grey opposite, is a good starting point when working out your ideal system. This PC would cost around £500 and is perfectly capable of running everyday office, multimedia or education software, as well as doing anything on the internet. But it's an unexciting PC. It will be able to play DVD movies, but they won't sound too impressive and games are a total no-no.

2 If you're interested in editing your own movies, you'll need a DVD rewriter. Make sure that you get one that supports both +R and -R formats. It's also worth getting one that will write two-layer discs, as this lets you squeeze twice as much information on a DVD.

There's not much difference in price between the different drive speeds, so we recommend getting one that can write DVD+R and DVD-R at 16X, and DVD+R DL at 4X. If you'll be doing a lot of video projects and disc writing, upgrade to a 250GB hard disk as a minimum.

3 Interested in games? Then upgrade to 512MB or 1GB of memory and a 200GB disk and get a graphics card. Budget cards based on the GeForce FX 6600 graphics processor or Radeon X700 will cope with this year's games, but to play next year's just as smoothly (and enjoy gorgeous graphics today) you'll want anything up to a GeForce FX 7800GTX or Radeon X850XT. You'll also need a faster processor.

4 Which faster processor? Well, faster AMD processors such as the Athlon 64 3400+ are good value. An Athlon FX-based system will cost £300 more but offers much better performance. The alternative is a PC based on Intel's Pentium 4 processor. These are also pricier, but many people feel reassured by the Intel brand, and the fastest P4s always do well in our performance tests.

5 If you're really not interested in games you can definitely live with integrated or cheap graphics, but there are plenty more reasons to upgrade the memory, hard disk or processor.

If you'll use your PC for serious DTP, music or photo editing you need the same kind of processor, memory and disk as for games. For video editing, consider getting two hard disks, perhaps in a RAID array.

6 A quality sound system will enhance all manner of PC activities. To hear the surround soundtrack of a DVD at its best, you'll need a quality 5.1 speaker system. Games can also use such a system to throw sound effects around you. If you're interested in neither games nor DVDs (or don't want to trail wires all around the room), go for a quality stereo pair with a subwoofer to boost the bass instead.

If you're interested in music or want better-quality sound, you'll need to invest in a dedicated sound card. As well as providing enhanced sound, such as Environmental Audio eXtension (EAX), which tweaks the acoustics to make sound appear to be playing in different environments, you'll get higher-quality outputs and more inputs.

7 Although 17" LCD screens save on desk space and look stylish, the limited display size means some may find onscreen text hard to read. A 19" LCD will cost around £50 more, has the same resolution (1,280x1,024) and is easier on the eye. It's better for those who want to edit large photos, documents or spreadsheets, run two applications side by side, or just look important. Twenty-inch LCDs are available from £400 and have a higher resolution (1,600x1,200).

FILL IN YOUR SPECS HERE

(Recommended minimum in grey)

PROCESSOR: Athlon 64 3000+

MEMORY: 256MB DDR

HARD DISK: 160GB

STORAGE: 52X CD-RW/16X DVD
combo drive

SOUND: Integrated

SPEAKERS: Stereo

GRAPHICS: Integrated

MONITOR: 17" LCD

EXTRAS: 56K modem

CONNECTORS: 4x USB2, network

SOFTWARE: Windows XP Home Edition

BASICS: Keyboard, mouse

8 The standard set of connectors can be usefully improved with extra USB2 ports, to which most run-of-the-mill PC gadgets attach, and a FireWire port, for fancy gadgets including digital video (DV) cameras.

9 Windows XP Home Edition is preinstalled on most new PCs. Any extra software bundled should be assessed critically. It may be that you'll never actually use it. But equally, you may happen across a PC that includes software you'd otherwise have paid for, in which case you'll almost certainly save lots of money by having it preloaded, although you won't get technical support included.

10 Money left over? A TV card will let you watch television on your PC screen and record programmes to your hard disk, or capture analogue video from a camcorder. Rather than splashing out on an extended warranty, pay extra to get the make of PC your friends or colleagues swear by.

